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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/792,187   | 03/03/2004  | Valery A. Petrenko   | 035721/274140       | 4902             |
| 826  | 7590        | 08/28/2006           | EXAMINER            |                  |
| ALSTON & BIRD LLP<br>BANK OF AMERICA PLAZA<br>101 SOUTH TRYON STREET, SUITE 4000<br>CHARLOTTE, NC 28280-4000 |             |                      | YU, MELANIE J       |                  |
|  |             |                      | ART UNIT            | PAPER NUMBER     |
|  |             |                      | 1641                |                  |

DATE MAILED: 08/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

#4

|                              |                                      |  |  |
|------------------------------|--------------------------------------|--|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/792,187 | <b>Applicant(s)</b><br>PETRENKO ET AL. |  |
|                              | <b>Examiner</b><br>Melanie Yu        | <b>Art Unit</b><br>1641                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2006.
- 2a) ☐ This action is **FINAL**.      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) 1 and 2 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 26 June 2006 has been entered. Claims 1 and 2 have been withdrawn and claims 4-20 have been canceled.

### ***Withdrawn Rejections***

2. Previous rejections under 35 USC 112, second paragraph and 35 USC 102(b) have been withdrawn in view of applicant's amendments and arguments.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 3 is rejected under 35 U.S.C. 102(b) as being anticipated by Roberts et al. (Structural Changes Accompanying Chloroform-Induced Contraction of the Filamentous Phage fd, 1993, Biochemistry, Vol. 32, pages 10479-10488).

Roberts et al. teach a monolayer comprising a stripped phage (stripped phage the phage is formed by contacting a phage with chloroform which alters the form of the phage into a spheroid and monolayer of phages is formed at the chloroform/water interface, pg. 10480, left column, 4<sup>th</sup> paragraph). Although the altered phage of Roberts et al. is not specifically called a stripped phage, the phage

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of Roberts et al. is altered as taught in the instant specification at page 16, lines 5-18 by exposure to chloroform and forming a spheroid. Roberts et al. also do not specifically recite a monolayer formed by the "stripped phages". However, the instant specification defines a monolayer as a single layer film of at least one amphiphilic compound at page 20, lines 20-21 of the instant specification, which implies that the stripped phages are amphiphilic because they form a monolayer in the instant specification. The I-forms and S-forms (phages formed by reacting with chloroform) react at the chloroform/water interface and therefore form an amphiphilic monolayer at the interface of fluids (pg. 10481, Figure 1 caption). Although Roberts et al. do not specifically teach the recited method steps of claim 3, a monolayer comprising a stripped phage as required by the claims is taught as disclosed above. Furthermore, the instant specification specifically states the Roberts et al. teaches a monolayer at page 22, lines 4-5. The method of making steps are not given patentable weight in a product claim and it is unclear what further product limitations would be provided by the recited method. Since Roberts et al. teach the specifically recited product limitations, Roberts et al. also teach the product recited in claim 3.

#### ***Response to Arguments***

4. Applicant's arguments with respect to claim 3 have been considered and have been withdrawn, but are moot in view of the new ground(s) of rejection. Upon further consideration, a new ground(s) of rejection is made in view of applicant's amendment requiring the new limitation of a stripped phage.

#### ***Conclusion***

No claims are allowed.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melanie Yu whose telephone number is (571) 272-2933. The examiner can normally be reached on M-F 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Le can be reached on (571) 272-0823. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Melanie Yu  
Patent Examiner  
Art Unit 1641



LONG V. LE  
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02/18/06